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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,246	01/11/2000	Mu-Jing Li	P3520	5409

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EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 08/09/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/481,246

Applicant(s)

LI, MU-JING

Examiner

Herng-der Day

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,3-16 and 18-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This communication is in response to Applicant's Amendment (paper # 3) to Office Action dated March 25, 2003 (paper # 2), faxed November 25, 2003.

1-1. Claims 1, 10, 13, 16, and 18 have been amended. Claims 2 and 17 have been cancelled. Claims 1, 3-16, and 18-20 are pending.

1-2. Claims 1, 3-16, and 18-20 have been examined and rejected.

#### ***Drawings***

2. The proposed drawing correction to FIG. 2 received November 25, 2003, is acceptable. When the application is allowed, Applicant will be required to submit new formal drawings because the Draftsperson's objection has not been corrected.

#### ***Specification***

3. The objections to the specification have been withdrawn.

4. The Examiner thanks Applicant's submitting of the selected published pages within the Calibre and the Opus CAD environment. They have been placed in the application file.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-16, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubin, U.S. Patent 5,050,091 issued September 17, 1991.

6-1. Regarding claim 1, Rubin discloses that in a computer-aided design environment, a method for ensuring consistency of design rule application among a plurality of CAD tool programs, each design rule defining a design characteristic (electrical design system, column 2, line 46 through column 4, line 56), the method comprising:

(a) creating a global design rule definition file including at least one global variable having a design rule characteristic assigned thereto (attribute of prototype objects, column 15, lines 45-56);

(b) providing a technology file containing a reference to the global variable (attribute of instance objects, column 15, lines 50-63);

(c) initializing one of the CAD tool programs which utilizes the global variable with the technology file reference to the global variable (initialization call, column 13, lines 31-40); and

(d) redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule (a change is made to the database, column 13, lines 5-23) and conforming the CAD tool program to modifications in the design rule (reflect the change made, column 13, lines 5-23).

6-2. Regarding claim 3, Rubin discloses that (d) further comprises:

(d.2) determining whether any modifications have occurred to the design rule (wait for a command, column 13, lines 36-40).

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**6-3.** Regarding claim 4, Rubin further discloses the CAD tool program and the global design rule definition file are written in the same language (C programming language, column 2, lines 54-57).

**6-4.** Regarding claim 5, Rubin further discloses the CAD tool program (verification routine are written in prolog programming language, column 9, lines 18-24) and the global design rule definition file (C programming language, column 2, lines 54-57) are not written in the same language.

**6-5.** Regarding claim 6, Rubin further discloses the global design rule definition file is in a text format (attributes, column 15, lines 20-25) and wherein (c) further comprises:

(c.1) translating the global variable into the language of the CAD tool program (verification routine are written in prolog programming language, column 9, lines 18-24).

**6-6.** Regarding claim 7, Rubin discloses (a) further comprises:

(a.1) creating a global design rule definition file comprising a plurality of global variables, each global variable having a design rule characteristic assigned thereto (attributes of prototype objects, column 15, lines 20-56).

**6-7.** Regarding claim 8, Rubin discloses that in a computer-aided design system having at least one memory and adhering to a plurality of design rules, each design rule defining a design characteristic, a system for ensuring consistency of design rule application among a plurality of CAD tool programs (electrical design system, column 2, line 46 through column 4, line 56), the system having a memory (main memory 606, FIG. 6) and comprising:

A. a global design rule definition file stored in the memory and including at least one global variable having a design rule characteristic assigned thereto (attribute of prototype objects, column 15, lines 45-56);

B. a technology file stored in the memory and containing a reference to the global variable (attribute of instance objects, column 15, lines 50-63);

C. at least one CAD tool program stored in the memory and which utilizes the global variable (design rule checker 70, FIG. 1); and

D. means for ensuring that the CAD tool program utilizes the current design rule changes (reflect the change made, column 13, lines 5-23).

**6-8.** Regarding claim 9, Rubin further discloses the means for ensuring comprises:

means for initializing the CAD tool program which utilizes the global variable with the technology file reference to the global variable (initialization call, column 13, lines 31-40).

**6-9.** Regarding claim 10, Rubin further discloses the CAD tool program and the global design rule definition file are written in the same language (C programming language, column 2, lines 54-57).

**6-10.** Regarding claim 11, Rubin further discloses the CAD tool program (verification routine are written in prolog programming language, column 9, lines 18-24) and the global design rule definition file (C programming language, column 2, lines 54-57) are not written in the same language.

**6-11.** Regarding claim 12, Rubin further discloses the global design rule definition file is in a text format and the system further comprises program code configured to translate the global

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variable into the language of the CAD tool program (verification routine are written in prolog programming language, column 9, lines 18-24).

**6-12.** Regarding claim 13, Rubin further discloses the global design rule definition file comprises a plurality of global variables, each global variable having a design rule characteristic assigned thereto (attributes of prototype objects, column 15, lines 20-56).

**6-13.** Regarding claim 14, Rubin discloses a computer program product for use with a computer system, the computer system capable of executing computer-aided design programs, the computer program product comprising a computer usable medium having program code embodied in the medium, the program code comprising:

(a) program code for defining in a global design rule definition file at least one global variable having a design rule characteristic assigned thereto (attribute of prototype objects, column 15, lines 45-56);

(b) program code defining a technology file containing a reference to the global variable (attribute of instance objects, column 15, lines 50-63);

(c) program code for initializing one of the CAD tool programs which utilizes the global variable with the technology file reference to the global variable (initialization call, column 13, lines 31-40); and

(d) program code for redefining the value of the global variable in the CAD tool program in accordance with modifications to the design rule characteristic assigned to the global variable in the global design rule definition file (change is made to the database, column 4, lines 18-56).

**6-14.** Regarding claim 15, Rubin discloses a computer program product for use with a computer system, the computer system capable of executing computer-aided design programs,

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the computer program product comprising a computer usable medium having program code embodied in the medium, the program code comprising:

A. program code for performing a computer-aided design function (place a transistor, column 14, lines 2-18) with a value of a global variable representing a design rule characteristic (attribute of prototype objects, column 15, lines 45-56);

B. program code for referencing the value of the global variable in a technology file (call upon the technology information block, column 14, lines 15-18); and

C. program code for utilizing the value of the global variable received from the technology file to perform the computer-aided design function (to acquire the appropriate information, column 14, lines 15-18).

**6-15.** Regarding claim 16, Rubin discloses that in a computer-aided design system having a memory (main memory 606, FIG. 6), a method for ensuring consistency of design rule application among a plurality of CAD tool programs, each design rule defining a design characteristic (electrical design system, column 2, line 46 through column 4, line 56), the method comprising:

(a) creating a global design rule definition file in the memory, the global design rule definition file including at least one global variable having a design rule characteristic assigned thereto (attribute of prototype objects, column 15, lines 45-56);

(b) providing at least one program statements within one of the CAD tool programs (design rule checker 70, FIG. 1) which references a global variable within the global design rule definition file (attribute of instance objects, column 15, lines 50-63); and



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(c) redefining the value of the global variable in the global design rule definition file in accordance with modifications to the design rule characteristic (a change is made to the database, column 13, lines 5-23) and conforming the CAD tool program to modifications in the design rule characteristic (reflect the change made, column 13, lines 5-23).

6-16. Regarding claim 18, this computer data signal claim includes identical computer program product limitations as in claim 15 and is anticipated using the same analysis of claim 15.

6-17. Regarding claim 19, Rubin further discloses the global design rule definition file comprises a plurality of global variables, each global variable having a design rule characteristic assigned thereto (attributes of prototype objects, column 15, lines 20-56).

6-18. Regarding claim 20, Rubin further discloses the global design rule definition file comprises a plurality of global variables, each global variable having a design rule characteristic assigned thereto (attributes of prototype objects, column 15, lines 20-56).

### *Applicant's Arguments*

7. Applicant argues the following:

(1) "In response to the rejection of the specification under 35 U. S. C. §112, first paragraph, the specification has been amended at the paragraph beginning on page 18, line 1" (page 6, paragraph 5, paper # 3).

(2) "Applicant has amended the claims 10, 13, 18 to conform the claim language with 35 U.S.C. Section 112, second paragraph" (page 6, paragraph 6, paper # 3).

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(3) "Rubin does not disclose the program code for redefining of a value of the global variable in the global design rule definition file in accordance with a modifications to the design rule as now cited in claim 14" (page 7, last second paragraph, paper # 3).

(4) "Claims 1 and 16 have been amended to include limitation similar to claim 14" (page 7, last paragraph, paper # 3).

(5) "Claims 12, 15, and 18 include similar language and are likewise believed patentable over the Rubin reference" (page 8, paragraph 3, paper # 3).

### *Response to Arguments*

8. Applicant's arguments have been fully considered.

8-1. Applicant's argument (1) is persuasive. The rejections of claims 1-20 under 35 U.S.C. 112, first paragraph, in paper # 2 have been withdrawn.

8-2. Applicant's argument (2) is persuasive. The rejections of claims 10, 13, and 18 under 35 U.S.C. 112, second paragraph, in paper # 2 have been withdrawn.

8-3. Response to Applicant's arguments (3) and (4). Rubin does not disclose the limitation (d) of claim 14 in the paragraphs cited by the Examiner in paper # 2. However, Rubin has disclosed the limitation (d) of claim 14 in, for example, column 4, lines 18-56, and column 13, lines 5-23.

8-4. Response to Applicant's argument (5). It is unclear what "similar language" is referred to in claims 12, 15, and 18, which is patentable over the Rubin reference. Claims 12, 15, and 18 are rejected under 35 U.S.C. 102(b) as detailed respectively in sections 6-11, 6-14, and 6-16 above.

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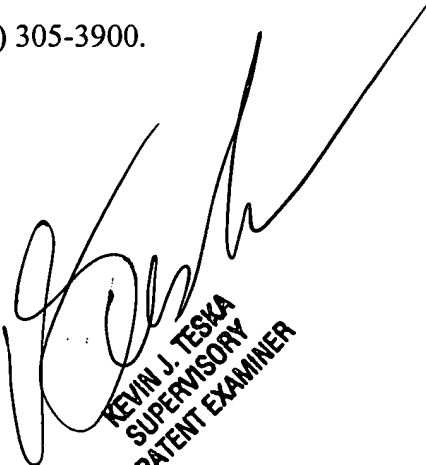
*Conclusion*

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean Homere can be reached on (703) 308-6647. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day *H.D.*  
August 8, 2004



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PATENT EXAMINER